



LAND USE CONTROL IMPLEMENTATION PLAN

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION KENNEDY SPACE CENTER BREVARD COUNTY, FLORIDA



FACILITY: GSA Vehicle Maintenance Facility
Solid Waste Management Unit No. 13

CONTAMINANTS: VOCs in Groundwater and
PAHs and Metals in Soil and Swale Soil

CONTROL: Prohibit Residential Use and Maintain the Swale Configuration

PURPOSE OF LAND USE CONTROL IMPLEMENTATION PLAN

This Land Use Control Implementation Plan (LUCIP) has been prepared to inform current and potential future users of the GSA Vehicle Maintenance Facility (GSA VMF) of institutional controls that have been implemented at the site¹. Although there are no current unacceptable risks to human health or the environment associated with the GSA VMF site, institutional land use controls (LUCs) are necessary to: (i) prevent residential exposure to surface soil; and (ii) ensure the swales at the site remain in their current configuration and that human activity within the swale is limited to intermittent maintenance. Controls will include periodic inspection, condition certification and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

Human health and ecological risk assessments were completed as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI). Chemicals of concern identified for human health risk during the RFI that exceeded

Florida Department of Environmental Protection (FDEP) and Environmental Protection Agency (EPA) cleanup target levels were volatile organic compounds (VOCs) in groundwater, and polynuclear aromatic hydrocarbons (PAHs) and metals in soil and swale soil. Groundwater issues associated with this site are being addressed under activities for the Communications, Maintenance, and Storage Facility (SWMU 82).

SITE DESCRIPTION

The GSA VMF site is a NASA-operated facility that consists of four numbered buildings that were constructed between 1966 and 1985 and four unnumbered structures that are used for support operations. The GSA VMF historically was used for vehicle service, maintenance, and fueling operations at KSC. Fueling operations were terminated in 1999. A natural gas facility was constructed at the site in 1994 and is still active, as are propellant refueling, storage, and testing operations. Due to the nature of the previous operations, various chemicals have been used at the facility, including motor oil,

1. This LUCIP summarizes institutional controls regarding the NASA KSC GSA Vehicle Maintenance Facility (GSA VMF). For detailed information on the site, consult the GSA VMF administrative file, which is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

hydraulic fluids, transmission fluid, engine coolant, automotive battery acid, solvents, and fuels.

SITE LOCATION

The GSA VMF site is located in the western portion of the KSC Industrial Area (Figure 1) and comprises approximately 9 acres. It is situated southwest of the intersection of 3rd Street S.E. and B Avenue. The site is located within Section 4 of Township 23 South, Range 37 East which is in the Orsino Quadrangle. The soil use control area covered by the LUCIP is shown on Figure 2. Coordinates of the corners of the LUC are provided in Figure 2 in the State Plane Coordinate System NAD 1983 meters, Florida East.

SITE CONTAMINATION AND CONTROL

PAHs and metals were detected in soil and swale soil above FDEP's residential and/or industrial soil cleanup target levels (SCTLs). Alternative SCTLs were developed for a groundskeeper scenario at the site and all soil contaminants were below the alternative SCTLs. The past, current, and projected future land use of the GSA VMF is industrial in nature. LUCs are therefore required to prohibit residential exposure to surface soil and to ensure the swales remain

in their current configuration and that human activity within the swale is limited to intermittent maintenance.

DECISION DOCUMENT

A Statement of Basis (SB) establishes institutional controls as a component of the remedy for this site. The SB for the site, KSC document number KSC-TA-6428, is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

IMPLEMENTATION

Institutional controls will be implemented by the KSC Environmental Program Office in accordance with Land Use Control Assurance Plan included in a Memorandum of Agreement (MOA)² between NASA, FDEP, and EPA, effective February 23, 2001. Upon approval of this LUCIP, it will be incorporated into the permit by reference. Property transfer (if conducted in the future) will be conducted in accordance with Section X of the MOA.

KSC's Environmental Program Office will provide KSC's Master Planning Office with survey coordinates of the LUCs. Restrictions will specify limitations on development and reuse for the area for as

2. By separate MOA effective February 23, 2001, with the EPA and FDEP, KSC, on behalf of NASA, agreed to implement Centerwide, certain periodic site inspections, condition certification, and agency notification procedures designed to ensure the maintenance by Center personnel of any site-specific LUCs deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of that agreement was that through the Center's substantial good faith compliance with the procedures called for herein, reasonable assurances would be provided to EPA and FDEP as to the permanency of those remedies which included the use of specific LUCs.

Although the terms and conditions of the MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed by NASA KSC, EPA and FDEP that the contemplated permanence of the remedy reflected herein shall be dependent upon the Center's substantial good faith compliance with the specific LUC maintenance commitments reflected herein. Should such compliance not occur or should the MOA be terminated, it is understood that the protectiveness of the remedy concurred in may be reconsidered and that additional measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

long as LUCs are necessary to protect human health and the environment.

MONITORING

Quarterly inspections to monitor that institutional controls specified herein are in place and operating will be conducted by KSC's Environmental Program Office. The inspection will verify that no residential exposure to site soils is occurring. The inspection will further verify that the swale maintenance activities meet the alternative SCTL assumptions for groundskeepers.

REPORTING

KSC's Environmental Program Office will submit annual reports to EPA and FDEP certifying retention of the implemented LUCs.

ENFORCEMENT

KSC's Environmental Program Office will be responsible for stopping any activities at KSC that are not compliant with this LUCIP.

MAINTENANCE

The LUCIP shall remain in place until a land use change is implemented and the concerns managed by the LUCIP are mitigated; or there is a discovery, based upon analytical evidence, that scenarios managed by the LUCIP are no longer a concern. Any change in LUC management must be approved by the EPA and FDEP and implemented by modification of NASA's operating permit.

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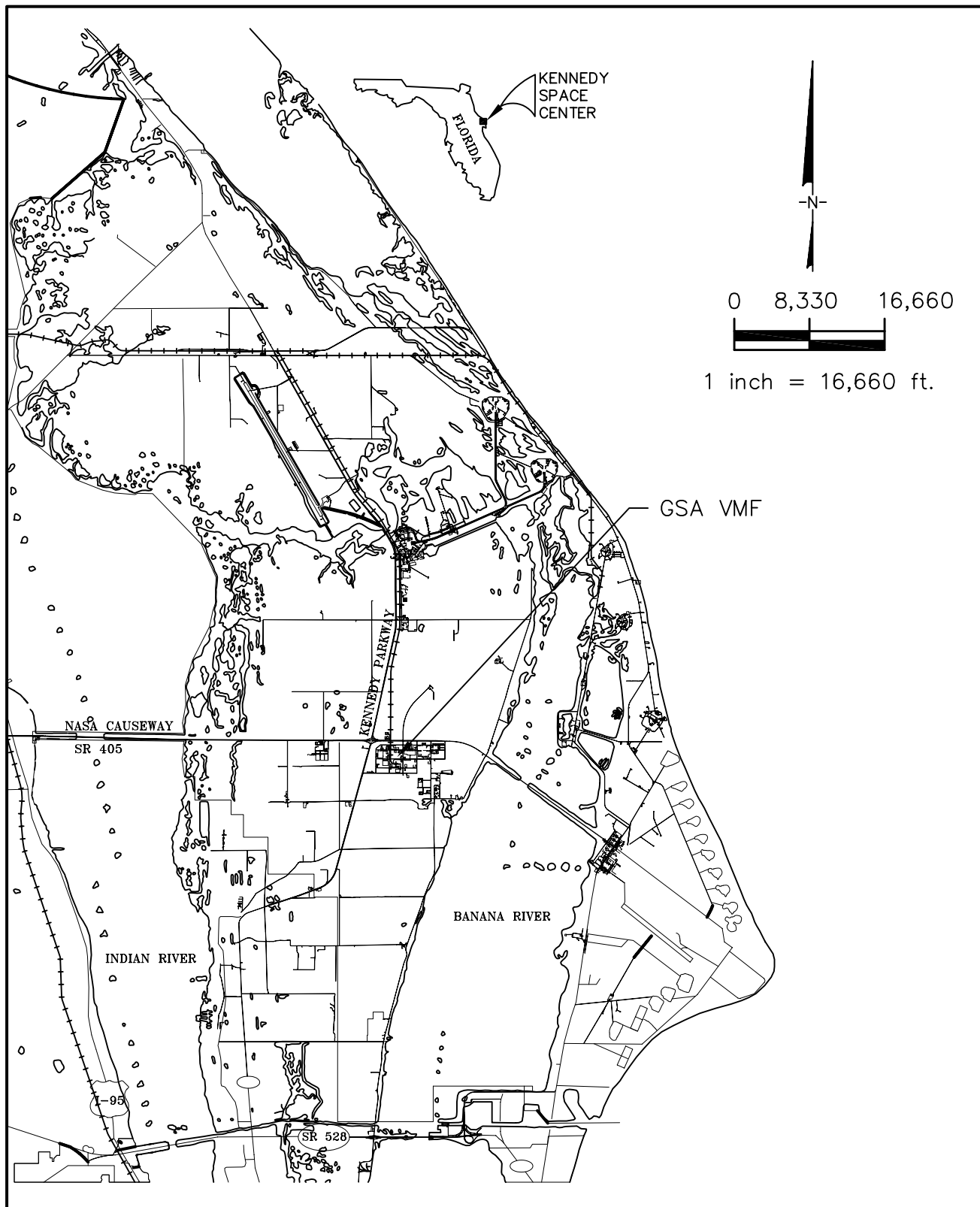


FIGURE 1
SITE LOCATION MAP
GSA VMF

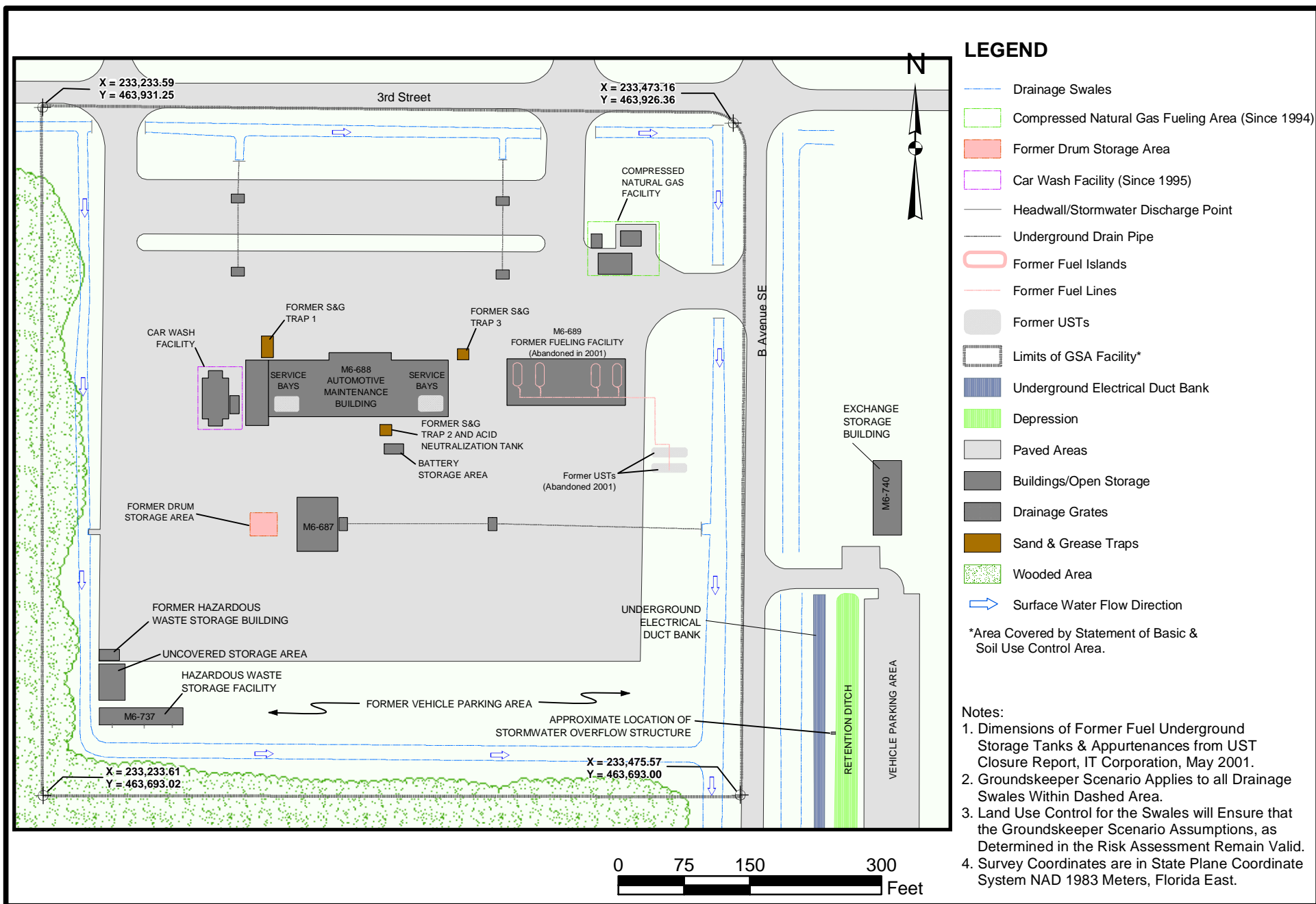


Figure 2
Soil Use Control Area
GSA VMF (SWMU #13)